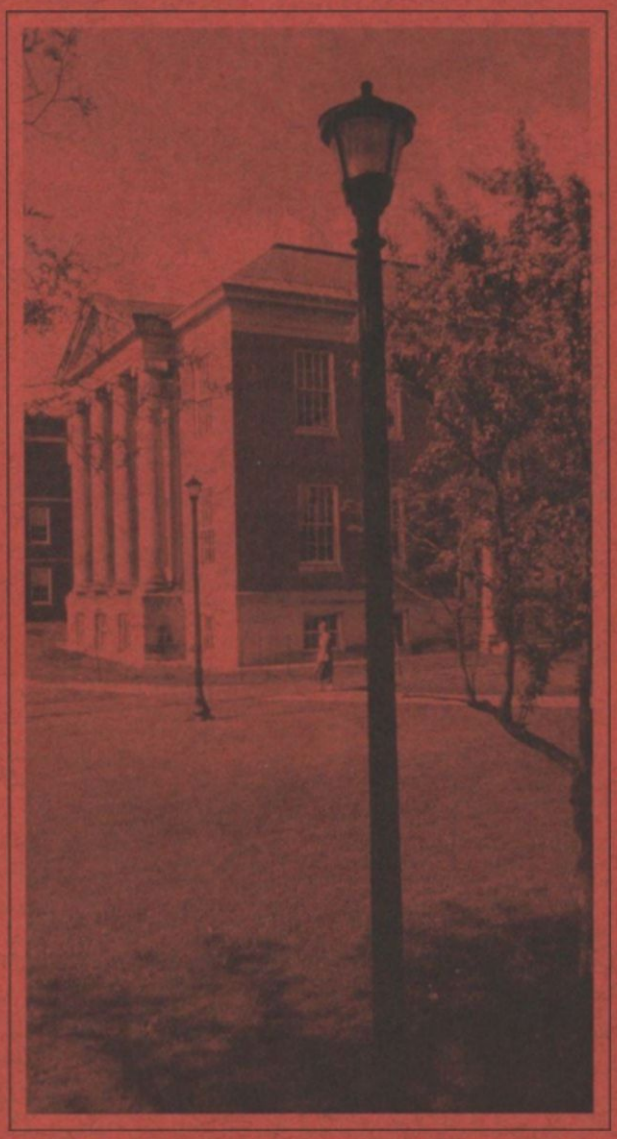
2000

2000 Scholar's Day Abstracts

State University of New York at Cortland

Scholars' Day



Abstracts

April 12, 2000

A Day of Research and Inquiry

Cortland

State University of New York College at Cortland

Abstracts

Scholars' Day

April 12, 2000

SCHOLARS' DAY 2000

Scholars' Day is an event designed to demonstrate, highlight, promote and encourage scholarship among Cortland faculty and students. The assumption behind the effort to conduct a Scholars' Day is that our scholarly work is crucial to who and what we are as individuals and as an institution. This day is an attempt to help our students and the general public understand and appreciate what we do. It is an attempt to draw students into the intellectual life, and into the excitement of scholarly work. It is also an attempt to publicize the accomplishments of our faculty, staff and students.

There will be presentations made by faculty, staff and students. In addition to attendance by campus faculty, staff and students, invitations have been extended to area high school students and their advisors, our elected representatives and to the Cortland community at large.

Scholars' Day is the result of the efforts of the College Research Committee and campus-wide participation of many groups and organizations. The Scholars' Day Committee, representing many of the academic offices and departments of the college, invites everyone to participate in this exciting event.

Support for Scholars' Day was received from the Office of the President, the Office of the Vice-President of Academic Affairs, the Cortland College Foundation, the Alumni Association, the Student Alumni Association and Auxiliary Services Corporation.

Our appreciation to the 2000 Scholars' Day Committee:

John Ryder, Arts & Sciences (Chair)

Helen Giles-Gee, Professional Studies

Bonni Hodges, Health

David Miller, Geography

Rhonda Moulton, Sponsored Programs

Kevin Pristash, Campus Activities

William Sharp, Provost

John Sternfeld, Biological Sciences

George Verdow, Classroom & Media Services

Gail Wood, Library

Special thanks to all faculty and staff who assisted the committee with planning for Scholars' Day.

KEYNOTE ADDRESS

Critical Reflections of a Teacher Educator:
Getting Beyond Standard(s) Talk

by

Dr. Wendy Kohli '71

The Scholars' Day Keynote Address will be delivered in Old Main Brown auditorium at 12:00 p.m. by Dr. Wendy Kohli, a 1971 SUNY Cortland graduate in Education. She earned her M.S. from Cortland and her Ph.D. in the Cultural Foundations of Education from Syracuse University, with a dissertation on Critical Hermeneutics and the Empowerment of Teachers.

Dr. Kohli has been active in education and alternative educational models since her student days in Cortland. While an undergraduate, she participated in a two-year urban education experiment between Cortland College and the Binghamton City Schools. While working on her Master's, Wendy taught 6th grade at Marathon Elementary School and then was Head Teacher at The Cortland Children's School, one of the 'free schools' of that era. As a student Dr. Kohli was also active in campus politics, including what was then called the House of Delegates and Students for a Democratic Society. As a graduate student at Syracuse she was able to connect theory with practice while serving as director of an alternative high school program in Cazenovia.

After receiving her Ph.D. Dr. Kohli taught at Hobart and William Smith Colleges before accepting a position at SUNY Cortland as the first Coordinator of the Center for Educational Exchange. This was followed by several years on the faculty at SUNY Binghamton, where she was tenured and promoted to Associate Professor, before moving to LSU. It was in Louisiana that Kohli became the Director of Teacher Education. In 1999 Dr. Kohli accepted her current position as Director of Teacher Education at The New School for Social Research in NYC.

Dr. Kohli's scholarly work has been published in a range of journals including the Harvard Educational Review, Studies in Philosophy and Education, Education and Society, Educational Theory and the International Journal of Social Education. She is also the editor of and contributor to *Critical Conversations in Philosophy of Education*, a volume published by Routledge.

PROGRAM ABSTRACTS

(in order of presentation by session)

POSTER SESSIONS

9:30-11 a.m.

Seasonal Stream Baseline and Storm Hydrograph Chemistry and the Use of C/Q Relationships

Christopher P. Cirmo, Assistant Professor and Acting Chair, Geology
Flavia Wood, Brian Bosley, Undergraduate Students
Brian Long, Graduate Student

Concentration-Discharge (C/Q) relationships have been proposed as tools in determining temporal and spatial changes in source waters for streams in the eastern United States. Stream baseline and storm hydrology and chemistry were collected from zero to third-order stream tributaries and the main stem of Hoxie Gorge Creek in Cortland County, NY. Acid neutralizing capacity (ANC), nitrate, basic actions, conductivity and pH have been analyzed on these sample from summer of 1999 through a relatively dry summer to snowmelt, and including storms in each season. Stream discharge was also measured and pro-rated to the tributaries based on contributing area. Results indicate seasonally changing C/Q ratios for conservative actions, and unpredictable ratios for the anion nitrate. Use of the C/Q relationship to predict sourcewaters is therefore sensitive to season, antecedent wetness, and storm magnitude.

To Suffrage and Beyond: The Evolution of the Bicyclette

Margaret L. Arnold, Assistant Professor, Recreation and Leisure Studies

This poster session will trace the evolution of the bicyclette (woman biker) in the fight for women's equality dating back to the late 1800's. In 1893 Frances Willard was at the height of her power and influence of the women's social reform movement. It was also a time when bicycles were wildly popular. She saw bicycling as a way for women to gain independence, develop confidence, and be seen by men as equals in skill. Elizabeth Cady Stanton, a leading women's suffragist, was riding to suffrage on a bicycle while a clergyman responded that she was riding to the devil and declared it immoral for any young lady to ride a bicycle. This session examines the evolution of the bicyclette and her influence during the women's movement and beyond.

Cortland's Community Outreach Partnership Center (COPC)

Craig B. Little, Professor and Chair, Sociology/Anthropology
Calvin Barrett, COPC Project Administrative Officer

SUNY Cortland is one of 16 institutions nationwide to have been recently awarded a Community Outreach Partnership Center (COPC) grant by the U.S. Department of Housing and Urban Development. The goal of the grant is to help colleges and universities mobilize resources to address needs in their local communities by forming partnerships with local agencies, organizations and citizens. SUNY Cortland's COPC is funded for three years. The project will have a visible presence in the community by having an office at the new "Cortland Works Career Center" at the Department of Labor office on Main Street. The project will address community needs in six broad areas: 1) community planning; 2) housing; 3) crime prevention; 4) economic development; 5) job training and education; and 6) research and evaluation. This poster session will focus on detailing the activities of the Cortland's COPC up to the present and plans for its future.

The Affects on Students Grades if They Participate in College Athletics

Kevin Stockwell, Undergraduate Student

With the growing excitement about College athletics and the money that these sports bring to the College Community, we forget about the student-athletes that are participating in these sports. Are we decreasing the value of their college academics? This presentation surveyed the athletes and non-athletes at SUNY Cortland and found interesting results that can be drawn upon when deciding whether or not participating in College athletics has a direct relationship with the grades that these students receive. With more and more practice time and less and less study time, this presentation exhibits a growing problem that exists on all campuses across the United States. The presentation does not discourage student-athletes from competing in College Sports, however it conveys a message that more time for academics needs to be allowed to help the future performance of these students.

Knee-Deep in Otter Creek for Twenty Years

James E. Bugh, Professor Emeritus, Geology

SUNY Cortland began a hydrogeomorphology survey of Otter Creek within the City of Cortland in 1980. The course had studied a reach of the East Branch of the Tioughnioga River from 1966 through 1979, but this required vehicles and time to reach the site. Transportation became increasingly more difficult and the number of hours in the laboratory was reduced from 3 to 2. A change to study the urban stream eliminated the difficulties encountered in the earlier study. Otter Creek is located within a five-minute walk of the geology laboratory room; therefore, transportation is no longer a problem and the time, even in the shortened period, is sufficient to complete significant measurements. The Otter Creek study has several advantages over the previous study. First, students can visit the site at almost any time---a distinct advantage in measurements following a storm event and in collecting dissolved oxygen data for daytime versus nighttime measurements. Secondly, urban streams have been neglected by many investigators until recent years, and early in the history of this project students provided data used for the design and construction of bridges over Otter Creek. Following the construction of the new bridges, no flooding has occurred on Otter Creek. Thus, the project has had educational and environmental values.

11 a.m.-12:30 p.m.

The Malloryville Wetland Complex: Glacially-Induced Geology and Geography in a Local Wetland

Christopher P. Cirmo, Assistant Professor and Acting Chair, Geology
David Miller, Associate Professor and Chair, Geography
Brian Winegarden, Liza Conrad, Undergraduate Students

Continuing work on the morainal-wetland complex near McLean in Tompkins County, NY, reveals a complex and unusual geography and hydrology in the underlying sand and gravel. Human structures have changed the historical flow of surface waters and the connections between wetland types within this complex are difficult to establish. The presence of wetlands of dramatically differing vegetation and chemical regimes, within meters of each other, are being investigated with the use of specific geographical and hydrological equipment. GPS (global positioning system) surveying and GIS (geographic information system) mapping is allowing us to address questions regarding the sensitivity of this site to human-induced changes, making its protection by the Nature Conservancy most important.

Integrating Elementary School Math, Science and Technology: From Theory to Practice

Amy Behuniak, Kelly Brennan, Allyson Chappell, Candy Farris, Debra Farwell, Katrina Heath, Kim Martino, Dennis Mazzalonga, Chris Poulopoulos, Lindsey Quill, Vicky Sellers, Andy Starowicz, Janis Stravino, Ken Sweet, Chenelle Thompson, Nancy Thompson, Melissa Topley, Erin Travis, Dennis Veator, Grace Weaver

Currently, there is a growing push for reform of science and mathematics education. As part of this reform movement, many educators are suggesting the integration of the teaching of math, science and technology in elementary school classrooms. By integrating these subjects, children can begin to explore real-world applications and contexts as a means to understand scientific and mathematical concepts. These content explorations are facilitated and supported with the use of technological tools. In this presentation, faculty and students from the Education Department will discuss the theory and research findings supporting the integration of math, science and technology in elementary school classrooms. In addition, the presenters will demonstrate some activities which achieve such integration. Audience participation is expected.

Effect of Lake Drawdown on Phosphorus Release from Sediments

Susan A. Linn, Undergraduate Student
R. Lawrence Klotz, Professor, Biological Sciences

Phosphorus controls the amount of plant and animal growth in lakes. Excessive amounts of phosphorus in water lead to overabundance of aquatic plants and algae and loss of water clarity. The release of phosphorus from lake sediments can be an important source of phosphorus to lake water. One aquatic plant management practice, lake water level drawdown, was studied to determine if the practice influenced phosphorus release from sediments. Studies determined how drying and freezing, as would occur during winter drawdown, influenced the release of phosphorus from sediments. Phosphorus release from sediments increased as a result of drying in all ten lake sites studied, with the increase over wet controls ranging from 3 to 84 fold. Freezing of sediments also resulted in increased phosphorus release, with 70 X more phosphorus released from frozen sediments compared to unfrozen controls. The results show that lake drawdown may significantly increase phosphorus levels in lakes.

The Effects of Perinatal Exposure to PCBs on the Emotionality and Reproductive Cycles of Rats
David F. Berger, Professor, Psychology
John P. Lombardo, Professor, Psychology
Students from Dr. Berger's Physiological Psychology Class

We examined the emotionality and estrus cycles of Sprague-Dawley rats whose mothers were fed food contaminated with polychlorinated biphenyls (PCBs) while pregnant. The 10 males and 10 females in the PCB-food group were from mothers that ate food mixed with PCBs (Aroclor 1248) Mothers of the same numbers of animals in the fish-food group ate food mixed with PCB-contaminated St. Lawrence River carp. Mothers of control rats ate uncontaminated food while pregnant; as did offspring in all groups after weaning. Testing began at 65 days of age. The females estrus cycles were assessed by vaginal smears for 35 days. The results showed that only the PCB-food group spent significantly more time in diestrus then control group, but not more than the fish-food group. The fish-food group, especially the females, showed more emotionality (more fecal boli) in the open-field then the other groups, which did not differ. Females in all groups explored the field more than males. These results agree with previous research; and are of concern because the reproductive systems and emotional behavior of humans may also be disrupted by these toxicants.

"I tawt I taw a puddy tat." No You Didn't: False Memories for Cartoon Characters
Randi L. Gillespie, Robert L. Henderson, Alison M. Dougall,
Jennifer W. Bruce, Undergraduate Students
Michael P. Toglia, Professor and Chair, Psychology

Overwhelming evidence supports the position that distorted memories are relatively common. Focusing on pictorial false recollections, subjects viewed either black and white or color slides of well-known cartoon characters. Each of six categories consisted of 8 figures with a corresponding critical nonpresented character. For example, the Flintstone category included Wilma Flinstone, Barney Rubble, Dino, but Fred Flintstone was not shown. In experiment one subjects received a recognition test. Identification of presented figures was excellent, but did not vary by slide type. False recognition of critical items was substantially lower, with the non-color presentation producing more false memories. A second study involved recall testing, either immediately or two days later. Correct recall varied by slide type with color figures remembered better. Illusory memories did not differ as a function of color, but were more prevalent after the delay. Results are discussed in terms of source monitoring theory and the distinctiveness heuristic.

12:30-2 p.m.

SCUBA Diving in New York's Great Lakes: From Novice to Professional
Walter Mann, Tiffany Cooper, Graduate Students
Sharon L. Todd, Assistant Professor, Recreation and Leisure Studies

SCUBA divers, tourism professionals, and community developers are concerned with the protection and use of underwater resources in New York's Great Lakes. Both pollution control programs and zebra mussel infestations have recently contributed to better water clarity for divers, plus the passage of the 1987 Abandoned Shipwreck Act has generated additional interest in underwater cultural resources. This project, sponsored by New York Sea Grant, provided background data to help the state's diving industry understand the types of divers that exist, how they progress in the activity, and what might hinder that progress. Focus groups and mail surveys were used to gather data from more than 800 active and inactive divers during Fall 1999. It is hoped that this knowledge will help managers, retailers, and policy makers be more effective in facilitating divers' growth and development as well as increase divers' satisfaction with their experiences in New York's Great Lakes.

Was I Good That Time? Self-Monitoring By An Eight-Year-Old Boy
Michael Persampieri, Undergraduate Student
Paul D. Luyben, Associate Professor, Psychology

A self-monitoring procedure was implemented to decrease frequent non-attending behavior of an 8 yr old boy in second grade during group activities. Examples of non-attending included not maintaining eye contact with speaker, playing with small objects in his hands, playing with his hair, or rocking his chair, etc. An interval recording procedure showed the level of non-attending was at 75%-80% during baseline. During the self-monitoring the boy and the field study student compared frequency of non-attending periodically. Positive reinforcement for accurate self-monitoring was given in the form of playtime the next morning if a specified criterion was reached. The results showed that non-attending behaviors dropped to levels of 0 to 2%. A similar but modified version of the self-monitoring technique was established so that the classroom teacher could implement the program after the college student completed the program.

***HotShotReaders*: College Tutors Improve the Reading Skills of Local Children**

Lorraine Chadwick, Laura J. Bear, Elizabeth Honis, Rachel Pierce, Susan Scranton, Undergraduate Students
Paul D. Luyben, Associate Professor, Psychology

The *HotShotReaders* program is designed to improve the reading performance of elementary school children who have difficulties in reading. Using strategies derived from research on discrimination training and generalization training, college students use two teaching strategies which have been empirically validated: interspersal training and the error correction procedure. Interspersal training involves presenting randomly interspersed "known" and "unknown" words in a fluency training exercise. In the error correction procedure, children are prompted with the correct answer whenever they make an error in story reading. They are then asked to reread the sentence in which they made the error. Social reinforcement is provided for correct work and for effort. Data from both formal and informal pre and post-tests indicate that children's reading speed, accuracy and comprehension improved. In this group poster session, college tutors present their data on their children's performance and discuss their experiences with the program.

2-3:30 p.m.

Analysis of Saltatory Movement in Desmognathus Salamanders

Mason Stilwell, Undergraduate Student
Peter K. Ducey, Professor, Biological Sciences

Saltatory movement has been observed in salamanders of the genus Desmognathus, but the mechanisms and effects of this jumping were unknown. To better understand the biomechanics and evolution of salamander saltation, we are using literature review, dissection, experimental trials, and analysis of videos. We are examining skeleto-muscular anatomy, biomechanics of general locomotion, and the saltatory ability of these salamanders, and making comparisons with locomotion in other vertebrates. Salamander walking is primarily a sprawling movement characterized by lateral bending with much of the propulsive forces generated by the hypaxial (trunk) muscles. Although most saltatory vertebrates (e.g. frogs, kangaroos, rabbits) generate propulsive forces of jumping by the simultaneous extension of the hind limbs, we observed significant lateral bending during salamander jumping. Possibly this bending generated much of the propulsive force. Through laboratory trials we are gathering data on the performance capabilities of salamanders of different sizes; additional aspects of the mechanics of jumping are being collected by observation and analysis of videos.

Investigating the Impact of Ritalin on Creativity

Michie O. Swartwood, Assistant Professor, Psychology
Jamie Farrell, Jill Weden, Claire Wilson, Lauren Seidman, Undergraduate Students

The objective of this study was to determine whether Ritalin (methylphenidate, MPH) impacts cognitive flexibility and creativity in children with Attention Deficit Hyperactivity Disorder (ADHD). Participants were administered the Wisconsin Card Test – Revised (WCT-R) and the Test of Divergent Thinking (TDT), while parents rated participant behavior on the Conner's ADHD rating scale, for both on and off MPH conditions. Performance on these measures and parent ratings of behavior were compared between medication conditions. Results indicate that MPH administration significantly decreased symptoms of ADHD, as rated by parents on the Conner's. No significant differences were found for the WCST-R task. On the TDT, MPH administration significantly decreased scores only on the Elaboration subscale, indicating that MPH negatively impacts the creative process of elaborative thinking (the ability to add to or embellish an existing idea), although robust effects on cognitive flexibility are not indicated.

The Quality of Campus Life

Sean Dundon, Undergraduate Student

The presentation will portray the feelings students have toward living on campus and living off-campus. With use of a survey and statistical analysis the benefits and disadvantages of campus and off-campus living, through a student's perspective, will be achieved. Dundon has asked the students who participated in this study a number of diverse questions to get their true feelings about the quality of campus life. The study will focus on students who moved off of campus in order to compare the two different living experiences.

Phylogenetic Analysis of the Entolomataceae (Agaricales, Basidiomycetes) from Nuclear Large Subunit rDNA Sequences

Nathan J. Krause, Undergraduate Student
Timothy J. Baroni, Professor, Biological Sciences

Since most groups of fungi produce little if any fossil record, it has been difficult to develop testable hypotheses concerning phylogenetic relationships among the fungal groups. With the development of DNA analysis techniques, it has become possible to examine small portions of a species' DNA molecule to determine similarities

and differences among the DNA sequences for species groups. Relatedness can then be inferred from the degree of similarity or dissimilarity in the DNA sequences. We have used these techniques to examine the large subunit of the nuclear ribosomal DNA sequences in forty different species of mushrooms of the family Entolomataceae to ascertain phylogenetic relationships to and within the family. Our data set was combined with a much larger data set on all the families of mushrooms. This larger gene tree was generated at Duke University by Drs. Rytas Vilgalys and Jean-Marc Moncalvo from funding by a National Science Foundation grant. Phylogenetic trees will be presented confirming that the Entolomataceae is a monophyletic group within the Agaricales (the order of mushrooms), and that there seems to be good support for recognizing several distinct genera within the Entolomataceae, and possibly recognizing also a new subfamily or tribe within the Entolomataceae.

A Star for Success! Improving Compliance in a Boy with Multiple Disabilities
Clare Monahan, Undergraduate Student
Paul D. Luyben, Associate Professor, Psychology

Non-compliance with instructions seriously interfered with the academic progress of a young boy with multiple disabilities. The purpose of this project was to increase both compliance and academic performance. Data were taken on the frequency of non-compliant behaviors (i.e. putting his head down on the table), and of the percentage of correct responses during lessons. During baseline, he showed high frequencies of non-compliant behaviors, and a downward trend in the percentage of correct responses on academic tasks. During the intervention he earned tokens (star stickers) for compliance and correct responses. Earned tokens were exchanged for coloring pages of his choice and computer time. It turned out that a chart representing progress and tokens earned was also reinforcing to him. During the intervention phase, he showed marked improvement in all three areas, with a substantial increase in work completed as an added result.

3:30-4:30 p.m.

Cortland Herpetology Connection: Achievements and New Directions
Kimberly J. Sweeney, Undergraduate Student
Peter K. Ducey, Professor, Biological Sciences

For the Cortland Herpetology Connection (CHC), Phase I is ending and Phase II is beginning. Over the past two years, CHC helped to increase high school participation in the NYS Department of Environmental Conservation's Amphibian and Reptile Atlas Project, which documented New York's geographic distribution of herpetofauna. We contacted more than 140 high school classes across New York and provided many with educational packets. We gave presentations to classes and teachers, maintained a web site that receives more than 350 visits monthly, and created a museum exhibit viewed by thousands per year. Following conclusion of the Atlas at the end of 1999, the CHC continues to inform, support, and stimulate high school classes. We designed CHC Challenges to encourage students to ask questions about conservation. The CHC is supported by NYS Great Lakes Research Consortium and NYS Great Lakes Protection Fund and works with the NYS Department of Environmental Conservation.

Drug and Alcohol Abuse at SUNY Cortland
Anthony Von Bergen, Undergraduate Student

Many students at Cortland College participate in drug and alcohol abuse daily. Whether it is smoking marijuana everyday, or consuming alcohol many times a week it is an ongoing scenario here at Cortland. We are not here to suggest who should do what, or how often, but some of the activities here need to be controlled. Using data from a random sample of fifty SUNY Cortland Students, VonBergen will provide the statistical proof of drug and alcohol abuse at Cortland through a series of statistical tests.

Macrofungi from the Cordillera Central, Republica Dominicana
Tracy R. Armstrong, Undergraduate Student
Timothy J. Baroni, Professor, Biological Sciences

A pack mule expedition to the Parque National Armando Bermudez in the central mountains of the Dominican Republic in March of 1998 was conducted to ascertain the biodiversity of Basidiomycetes in that region. This expedition was a component of a National Science Foundation funded project designed to catalog Basidiomycetes of the Greater Antilles. Even though La Niña like weather conditions clearly influenced the quantity of data gathered, over forty specimens were collected and documented. This first ever report on Basidiomycetes for this region of the Caribbean discusses and illustrates representative species from the fifteen different genera which were found at elevations ranging from 1500 to 3000 meters. Our preliminary results suggest that the Dominican Republic, unlike the other islands of the Greater Antilles, has a significant component of North American species of Basidiomycetes. In comparison, the islands of Puerto Rico.and Jamaica show much closer ties to South American and Lesser Antillean mycotas. It is not clear at this time whether the tectonic origins of the island of Hispaniola or

the unusual pine forest vegetation at the higher elevations have the greatest influence on the development of the Basidiomycete mycota in the Dominican Republic.

CONCURRENT SESSIONS I

9-10:15 a.m.

Whose Africa Is It? A Critique of Henry Louis Gates, Jr.'s 1999 PBS Documentary, "Wonders of the African World"

Matthew Carotenuto, Undergraduate Student
Kassim Kone, Assistant Professor, Sociology/Anthropology
Donald Wright, Distinguished Teaching Professor, History

In the fall of 1999, with considerable fanfare, PBS aired Harvard University Professor Henry Louis Gates, Jr.'s heavily financed, six-part documentary: "Wonders of the African World." One of today's leading African-American intellectuals and compiler of the new *Encyclopedia Africana*, Gates, Jr. attempted to bring to light for an American audience his investigation of the greatness of Africa's long-overlooked past. What he provided, in the minds of many scholars and students of African history and culture, was an outsiders' view that lacked cultural sensitivity. Criticism of Gates, Jr. and the series has been considerable. A student/faculty team of presenters, each familiar with African history and culture, will show brief segments of "Wonders of the African World," discuss its good and bad points, and offer suggestions for its utility in classrooms and elsewhere.

Substrate Utilization in Fasted and Fed Females During Moderate Intensity Treadmill Walking

Kimberly A. Foster, Undergraduate Student

Evaluating the Validity of an Instantaneous Velocity Recorder

Jeffrey A. Cook, Undergraduate Student
Peter McGinnis, Professor, Physical Education

Measuring instantaneous velocities of human subjects has long been a problem for researchers in human performance. Devices exist for this purpose, but finding the balance between accuracy and cost can be challenging. Using a string or wire type velocimeter seems to be the most cost efficient. However, testing is required to determine the validity of such a device. Using a calculator based recording device, data was collected and the time histories of displacement, velocity, and acceleration were computed. Comparisons between recorded data and calculations of the same factors were made. Based on the similarity between results, it was concluded that the device provided an acceptable degree of accuracy.

The Effects of Peak Expiratory Flow Rate on Maximal Oxygen Consumption: Does a Decrease in Peak Expiratory Flow Rate Decrease VO_2 Max?

Adrienne Sander, Undergraduate Student

The purpose of this study will be to determine if there is a significant correlation between peak expiratory flow rate (PEFR) and VO2 max. Twenty college age (18-24 year old) individuals, both trained and sedentary, enrolled at the State University of New York, at Cortland will serve as participants in this study. After signing a consent form, each participant will complete an expiratory flow test using a Collins Spirometer as well as a progressive VO2 submax test. VO2max will be estimated using the YMCA bicycle test. Both tests will be performed three times during a two-week period. To analyze the results of the two tests a Pearson's Product Correlation will determine the significance between the average PEFR and average estimated VO2 max. The results from this study may explain the decrease in exercise capacity in patients with exercise induced bronchiospasm.

Anticipation Timing in Baseball Batting

Chris Schelin, Undergraduate Student

The purpose of this study was to examine the effect of various stimulus approach angles and speeds on the anticipation timing of skilled baseball players. Forty (40) skilled baseball subjects were randomly assigned to the testing groups. Anticipation timing was measured using the Bassin Anticipation Timing Apparatus over a two-day period. Each subject received sixty trials for two days, twenty for all three angles (straight on and 15 degrees on both sides), and for two stimulus speeds (45 and 70 mph). The speeds of the ball were randomly varied across trials. In each trial, subjects swung a bat and attempted to break the plane exactly when the light arrived from the fourteen-foot track. Absolute error, constant error, and variable error were calculated and analyzed using a SPSS factorial design with repeated measures and tested at a .05 probability level. Results will be discussed in relation to other research findings and to real-life applications.

"One is not fond of overripe pears": Conduct Literature and the Call for "True Womanhood"
Denise D. Knight, Professor, English

This presentation will discuss cultural assumptions about the "appropriate" conduct and appearance of women in America from the late nineteenth century through World War II. Through an examination of popular literary depictions of women, social etiquette guides, medical advice books, and training manuals for male supervisors of women workers during World War II, Knight will discuss the pressure placed on women to conform to the cultural imperatives to attain beauty, practice deference, and exercise self-control. Among the works that Knight will discuss are Power's The Ugly-Girl Papers (1874), Chopin's The Awakening (1899), Wells' Decorum: A Practical Treatise on Etiquette and Dress (1886), Winsome Womanhood: Familiar Talks on Life and Conduct (1900), and "Eleven Tips on Getting More Efficiency Out of Women" (1943).

Her Cups Runneth Over: Posturing, Images and Sexual Advice for the Timid Twentieth-century Female
Kathleen A. Lawrence, Associate Professor, Communication Studies

This presentation will focus on how contemporary women are tutored in sexual etiquette through magazine rhetoric. *Cosmopolitan*, for example, through innovation sin content, layout and marketing, led the drive to commodify the emerging feminist and quasi-feminist subcultures. As editor, Helen Gurley Brown helped promote and fantasize a "lifestyle" of enabling self-expression. That lifestyle initiated bold, in many cases almost predatory sexual assertiveness with a constantly evolving (and by extension constantly in need of upgrading) material environment. The underlying gestalt was one of strategically self-aggrandizing shock value. By the middle 1990s, however, two significant market factors eroded the "shock" gestalt's effectiveness. The change from deliberate strategic self-aggrandizement to impulsive consumption was accompanied by a shift in the primary target audience from the cash-starved underemployed Cosmo "single girl" to her pre and post-pubescent sisters. Lawrence will illustrate the shift by comparing the editorial dynamics of *Cosmopolitan* to those of the various "teen 'zines" at the end of the twentieth century.

Integrating Elementary School Math, Science and Technology: From Theory to Practice
Andrea Lachance, Assistant Professor, Education
Beth Shiner Klein, Assistant Professor, Education
Sophia Pothos, Cheryl Rose, Amy Sapala, Sarah Sennett, Joe Shaver, Amanda Sokoloff, Undergraduate Students

Currently, there is a growing push for reform of science and mathematics education. As part of this reform movement, many educators are suggesting the integration of the teaching of math, science and technology in elementary school classrooms. By integrating these subjects, children can begin to explore real-world applications and contexts as a means to understand scientific and mathematical concepts. These content explorations are facilitated and supported with the use of technological tools. In this presentation, faculty and students from the Education Department will discuss the theory and research findings supporting the integration of math, science and technology in elementary school classrooms. In addition, the presenters will demonstrate some activities which achieve such integration. Audience participation is expected.

Real World Research Methods - Involving Faculty, Staff and Students in a Data Collection and Analysis Project
Richard Kendrick, Associate Professor, Sociology/Anthropology
Peter D. Koryzno, Director, Public Relations
Robert Ploutz-Snyder, Director, Institutional Research and Assessment
Students from Dr. Kendrick's Methods of Social Research II Class

In the Fall and Spring semesters of 1999-2000, students in Dr. Kendrick's Methods of Social Research II classes became involved in an experiment - integrating a hands-on data collection and analysis project into the research methods course. Mr. Koryzno and Dr. Ploutz-Snyder came up with a survey instrument for assessing the interest of Cortland alumni in the "Columns" newspaper. Students in Dr. Kendrick's classes prepared a data file, coded the data, entered it, and analyzed it. Kendrick, Koryzno, and Ploutz-Snyder will discuss the process - how we did it and what we learned from it. The students in the methods classes will talk about what the survey says about Cortland's alumni.

Making Scut-Work Scholarly: Transforming Programs, Surviving Reviews, and Keeping Academics at the Heart

Cynthia Benton DeCorse, Associate Professor and Chair, Education
Bill Buxton, Assistant Professor, Education
Barbara Combs, Assistant Professor, Education
Susana Davidenko, Assistant Professor, Education
Virginia Dudgeon, Instructor, Education
Michelle Kelly, Assistant Professor, Education
Andrea Lachance, Assistant Professor, Education
Joy Mosher, Assistant Professor, Education
Margaret Richardson, Assistant Professor, Education

The presentation summarizes the effects of an intensive year of Education Program changes to meet state and national standards, specifically innovations in school/college collaborations, field experiences, research and curriculum integration. Faculty members will share their perceptions of the challenges and opportunities of urgent external demands for change, and connect these experiences to relevant educational theory and research. Decision-making processes and obstacles to program renewal, an analysis of disparate attitudes about accomplishing change, implications both personal and professional for the department and programs, and effects of a more rigorous academic focus on students and the college at large are examined. Finally, focus on the effects of scholarly efforts to document change are reviewed.

Who Is In Prison and Why

Mike Kearns, Jason Phelix Undergraduate Students
Larry Ashley, Associate Professor and Chair, Philosophy

What does the 'out of sight, out of mind' attitude accomplish? What is the nature of the prison experience? What models should be pursued: Corrections, rehabilitation or other alternatives in order to reduce the practice of the revolving door for repeat offenders? This panel will review the recent trends in US prison policies and it will focus on incarceration rates of people of color, especially of African-Americans. The speakers will address the experiences of adult prisoners, juvenile offenders, and children, who live in foster homes.

Overview of the Cortland County Economy

Mike La Pointe, Undergraduate Student
Mark J. Prus, Associate Professor and Chair, Economics

Using data from publicly available sources, we construct an overview of the regional economy. This overview examines employment patterns, population trends, income levels, and business growth, and compares developments in the regional economy with statewide and national trends. The purpose of this project is twofold. First, we hope to build an historical database that can be added to over time in order to track the local economy. Second, we will use the database to describe trends in the local economy for the purpose of developing strategies for future economic development.

"Fiscal Policy for Dummies": A Primer on Fiscal Policy Debates

Susanne Polley, Assistant Professor, Economics

Polley will chronicle the movement away from the economist's traditional reliance on the size of the federal government's budget as an indicator of fiscal policy stance. Two major developments in the process of evaluating and interpreting fiscal policy are examined. First, it was argued that a budget measure that was adjusted for the effects of high and fluctuating interest rates as well as rising inflation rates would more accurately reflect the true thrust of fiscal policy. The second movement argued that budget deficit figures are the result of arbitrarily labeled accounting entries and are, therefore, incapable of reflecting the macroeconomic consequences of fiscal policy changes. Consequently, researchers engaged in generational accounting recommend a process of evaluation that identifies the winners and losers of policy changes and thus forces policy makers to develop policies that are generationally balanced.

The Effects of Perinatal Exposure to PCBs on Hyperactivity in Male and Female Rats

John P. Lombardo, Professor, Psychology
David F. Berger, Professor, Psychology
Peter M. Jeffers, Professor and Chair, Chemistry
Peter Dupre, Randi Gillespie, Misty Hill, Amanda Natoli, Undergraduate Students

We measured hyperactivity and impulsiveness in Sprague-Dawley rats whose mothers were fed food contaminated with polychlorinated biphenyls (PCBs) while pregnant. The 10 males and 10 females in the PCB-food group were from mothers that ate food mixed with PCBs (Aroclor 1248) Mothers of the same numbers of animals in

the fish-food group ate food mixed with PCB-contaminated St. Lawrence River carp. Mothers of control rats ate uncontaminated food while pregnant; as did offspring in all groups after weaning. All animals were lever-press trained using an two-component multiple 120-s, fixed interval, 5-min extinction schedule. Past research employed this procedure with hyperactive boys and a strain of rats that are spontaneously hypertensive and hyperactive. This past research indicated that hyperactive boys and hyperactive rats made many response toward the end of the 120-s interval. That is, as the time for reinforcement approached the boys and rats had difficulty inhibiting their responses. In the present study, both groups of exposed animals behaved like the hyperactive boys and the hyperactive rats. The sediment exposed group was more impulsive than the aroclor group, but both groups were more impulsive than the control group, indicating that exposure to PCBs produced hyperactive-like behavior.

Analysis of PCBs in Rat Tissues

Ellen Lawrence, Undergraduate Student

Methods for extracting PCBs (Polychlorinated Biphenyls) from tissue samples and for quantitatively determining the concentrations of these chemicals have been developed, based on methods used at the New York State Public Health Laboratories. We have analyzed fat tissue and tissues from the brains, livers, kidneys, and lungs of experimental animals that ingested PCBs either as "pure" PCB Aroclor 1248 added to their food, or as PCB contained in fish taken from the St. Lawrence River. Our premise was that the PCB concentrations found in different tissues taken from the same animal may differ, but the ratios of these concentrations should stay reasonably constant across the entire sample population, reflecting distribution coefficients that reflect differences in tissue type only. These findings could be important in providing accurate, although indirect data on the amount of PCB material in the brain of an experimental animal, since these concentrations might be quite small compared to PCB content of fat tissue. Experimental methods and experimental difficulties will be discussed. Preliminary findings on distribution coefficients will be presented.

Robert Conquests's *REFLECTIONS ON A RAVAGED CENTURY*

Gordon Beadle, Professor, History

Robert Conquest is perhaps our greatest living historian. Since he was right so often and so early about the twin totalitarianisms of our age, his reflections at the age of 82 on what he calls our "ravaged century" are worthy of close examination. The paper will attempt to set forth Conquest's views on the attraction of Communism and National Socialism and the dangers of "big idea" political ideologies in general. Conquest is also sharply critical of deluded Cold War liberals, modern American higher education, and the dangerous notion that the study of humanity "can be done with the rigor of the true sciences." Looking to the future, Conquest sees the European Union as certain to fail. He advocates instead a broad English-speaking union made up of the United States and the large and small democracies of the British Commonwealth of Nations.

General Douhet: The Father of Appeasement

Jonathan Brown, Undergraduate Student

Of all the weapons to emerge from the Great War, none would strike sheer terror into the hearts of the civilian population during the interwar period quite like the strategic bomber. It is to General Douhet, a military engineer by trade, whom this very real fear at the time can be attributed to. Douhetists interpreted in *Command of the Air*, that the skies would be black with planes, imminent destruction would rain down, and cities the size of London would be annihilated in gas clouds. Most British government ministries gave very bleak estimates of the casualties that would be inflicted in an air attack. It is with these estimates that Neville Chamberlain went to meet Hitler at the now infamous Munich Conference.

The Application of Student Case Analyses in Pre-Professional Education

Elizabeth F. Owens, Lecturer, Communication Studies

The case method has long been an pedagogical tool in Law and Business Programs across the country. More recently it has become an important part of creating experiential learning environments in Pre-professional education. This presentation will first explore the theoretical foundations of the use of the case method. Next, a model will be proposed for use in preprofessional education. Last, a discussion among participants will be engendered by the sharing of the authors' examples from classes in Interpersonal and Organizational Communication.

Digitized Video in the Classroom: Demonstrating Instead of Lecturing

Paul D. Luyben, Associate Professor, Psychology

It is said that a [still] picture is worth a thousand words. If so, video clips must be worth many thousands of words. Experience suggests that although words (lectures) are effective in communicating factual information, issues, and logical arguments, lectures alone are much less effective than visual material in helping students understand and analyze dynamic interactions (e.g., interactions between parent-child, teacher-student). The

difficulty appears to be identifying sequential elements in a temporal arrangement of events. An elegant solution is to use digital video. This presentation demonstrates the use of digital video in the classroom, illustrating not only the products but also the steps involved in creating lessons which involve digital images. Some of the advantages of digital format are discussed.

A Recreational Needs Assessment of SUNY Cortland Students
Lynn Anderson, Associate Professor, Recreation and Leisure Studies
Erin Bralich, Tinelle Bustam, John D'Antonio, Graduate Students

The purpose of this study was to determine the recreational needs of students who attend SUNY Cortland, including how they felt about outdoor recreation and wellness programming, current patterns of use of on-campus recreation facilities, the need for a new student recreation center, and the concern about alcohol. 409 students in a random sample responded to telephone and door-to-door surveys, with a response rate of 76%. A focus group with a small sample of nontraditional students was also conducted. Results showed that students feel that recreation is important to their quality of life on campus. However, constraints, such as time, lack of opportunities, and unavailability of campus facilities, are present. There is strong support for a new student recreation center and outdoor recreation programming. Alcohol use persists as a problem at SUNY Cortland, substantiating a need for greater positive recreation opportunities and education about leisure and wellness.

Effects of Upper Body Plyometrics on Isokinetic Force Development
Alan Maruschak, Undergraduate Student

The purpose of this project is to determine the effects of upper body plyometric exercise on isokinetic force development of the elbow flexors. Twelve college aged (18-25) participants will undergo a 7-week training program designed to improve their one repetition maximum (1RM) of the bench press. The participants will be randomly assigned to two groups. The control group will follow the 4 day per week training program using traditional weight training movements. The experimental group will follow the same 4 day per week training program as the control group; however, one of the two chest/shoulder/triceps workouts will be supplemented by using upper body plyometric exercises. Isokinetic force production of the elbow flexors will be measured using the Cybex Dual-Channel System before and after the 7-week training program.

CONCURRENT SESSIONS II

10:30-11:45 a.m.

High Stakes Tests and Higher Standards: Pushing for More or Just More Pushing?
Timothy D. Slekar, Assistant Professor, Education
Michelle Kelly, Assistant Professor, Education
Bill Buxton, Assistant Professor, Education

This presentation will explore the historical and philosophical perspectives of high stakes testing and the implementation of subject matter standards. The presentation will first, define standards and testing along a historical timeline. At each phase of the timeline the philosophical ideologies and political influences on testing and standards will be discussed. This information will then be used as backdrop for a critical discussion of current testing and standard movements.

Writing and Speaking as a Way of Making Sense of Science
Michele Irvin Gonzalez, Associate Professor, Education
Mary Lee Martens, Associate Professor, Education

This interactive session will engage participants in examining children's (K-6) writing and speaking in science. The intent is to consider ways of using children's written and oral expression to better understand what they know and understand and to use this to inform instruction. Additionally, issues of vocabulary development and its relationship to children's understanding of science concepts will be explored. The format of this session will include sharing of children's writing (including drawing as a form of representation) from a variety of ages in small groups followed by large group analysis and synthesis of findings. Mini-case studies will be interspersed throughout the session in order to highlight effective practices. Audio clips of children speaking about topics in science will also be introduced as a way to clarify how and when best to introduce science of vocabulary so as to enhance understanding of concepts.

Presidential Elections 2000: A Roundtable Assessment
Robert J. Spitzer, Distinguished Service Professor, Political Science
Judith A. Best, Distinguished Teaching Professor, Political Science
Francine D'Amico, Lecturer, Political Science
Jerome O'Callaghan, Associate Professor and Chair, Political Science
Henry J. Steck, Distinguished Service Professor, Political Science

Has the first presidential election of the new millenium ushered in a new political order, marked by the apparent end of the extremist politics of the last two decades? Is Newt Gingrich conservatism dead? If so, was it killed by Bill Clinton or George W. Bush? Has Clinton remade the Democratic Party? What are the effects of the Clinton impeachment? What about the role of money? Will the year 2000 elections transform American politics, or is it simply more of the same? These and other questions will be examined in a dynamic dialogue among panel participants and the audience.

1999-2000 Excellence in Writing
Three Winners of the 1999-2000 Excellence in Writing Awards

Three winners of the 1999-2000 Excellence in Writing Awards will present their prize-winning papers. Each year the College Writing Committee presents six awards for outstanding papers written in Cortland courses. First place winners receive a cash prize of $100. The contest is open to undergraduate and graduate student, and prizes are awarded in each category.

"Modernizing" Cairo: Noble Cause, Negative Effects
Jackie Villnave, Undergraduate Student

Modernizing efforts in Cairo, Egypt are responsible for a rise in poverty and homelessness in the city's urban areas. As industrialization spreads and the population grows, the people of Cairo face increasingly deteriorating conditions. These phenomena and their causes and consequences are explored in the context of interviews of homeless Cairo inhabitants, and contemporary theories on the "modernizing" process.

Dominance, Occupation, and Religious Oppression: The Violation of Universal Human Rights in Tibet
Jessica Adams, Undergraduate Student

Exemplifying the colonial mentality of dominance, hierarchical inequality and forced acculturation, the area of Tibet has been oppressed by Chinese government expansion since 1951. This has resulted in the loss of cultural autonomy and independence, and consequently, has led to the demise of the Lamaist state and Tibetan religious freedom. Government violence against nuns, monks, and lamas are human rights and power abuses, the implications of which are devastating for both Tibetan religious and cultural expression.

The Sacred Path: Insights into Maya Ceremony
Brian Montes, Undergraduate Student

After five centuries of colonialism, the Maya indigenous people still occupy the Yucatec Peninsula, while six million others, speaking 27 different Maya languages, live in Guatemala, Belize, Honduras, and southern Mexico. How have these people remained unbroken after being reduced to third-class citizens in their own ancestral homelands? Perhaps an insight into their spirituality can help us better understand their cultural vitality.

Modernization: A Looming Threat to the Indigenous Yanomamo of Brazil and Venezuela
Sue Lamont, Undergraduate Student

Modernization has brought gold mining, cattle ranching, and logging operations to Amazonia, causing wholesale destruction of the Amazon rainforest the Yanomamo call home. In addition to the numerous physical ailments caused by the resultant pollution, they also find themselves in a constant struggle to preserve their traditional culture, their way of life, and their autonomy.

The Middle East Today: Fact vs. Fiction
George N. El-Hage, Lecturer, International Communications and Culture

As we journey into a new millennium and explore our known universe and beyond, one part of our world remains mysteriously exciting and challenging: the Middle East, a land of vast expanse and vital resources where the ancient and the most modern engage in an everlasting dialogue. El-Hage will shed light on the region which is considered to be the cradle of civilization, the Holy land, and the birth place of monotheism and controversy. He will also address issues like stereotyping and the media portrayal of Middle Eastern images. This presentation will be followed by a question and answer session which will help you distinguish facts versus fiction concerning the Middle East.

Developing a Teaching Repertoire from One-minute Papers

Thomas O. Mwanika, Associate Professor, Communication Studies

This presentation will report a range of learning preferences elicited via one-minute papers from students enrolled in communication research and statistical methods courses during fall 1999 semester. Based on these preferences, the presentation will propose a framework for developing a teaching repertoire which serves more effectively all students individually. The paper's thesis is that students must be treated as unique individuals who have unique needs, unique cognitive styles and unique learning preferences, and that this orientation is a prerequisite for effective teaching.

Student Use of Reflective Listening Techniques to Generate Insight in Composition Classes

John Suarez, Lecturer, English

Many students submit essays and compositions that offer shallow and simplistic ideas. In order to design complex and thought-provoking perspectives, students can - during the collaborative invention stage of their writing - apply the reflective listening techniques of asking open-ended questions and paraphrasing the authors' responses. Open-ended questions avoid the "either/or" stagnation of closed questions. Team members' paraphrases prompt additional reflection by the author, and those paraphrases often contain synonyms and metaphors which prompt the author to probe and complicate her ideas even further. These techniques are also useful in student-teacher conferences, peer review, and interviews conducted by students searching for additional essay information. After Suarez discusses the rationale for this approach, participants will workshop the techniques and then "debrief" themselves.

Flash in the Pan: New Media Production in the Classroom

Charles Heasley, Professor and Chair, Art and Art History
Jason Belknap, Jason Contento, Sara Harris, Undergraduate Students
Walter Anderson, Graduate Student

Flash 4 is the first Web based file format which allow designers and new media artists full control over quality typographic fonts layout, high impact animation, multimedia, audio and interactivity. Exploring the potential of this new media tool, by using Flash 4 in combination with Quicktime Authoring Studio, the students in the Department of Art and Art History will demonstrate how they have created in-class projects realized as limited edition artist books, stitched 360° panoramas, and fast paced animations for interactive electronic media presentations and non-linear video productions.

A Study of Modified Mastery Learning in Mathematics

R. Bruce Mattingly, Associate Professor and Chair, Mathematics

One technique for encouraging students to learn from their mistakes is to have them re-work missed test questions. A method known as modified mastery learning builds on this practice and seeks to promote deeper understanding by having students analyze and explain their original errors, provide correct solutions, and then provide new questions (along with solutions) on the same topics. This presentation describes a study of several college classes in which students were given the opportunity to earn additional points on tests through modified mastery learning activities. The goal of the study is to determine whether participation in modified mastery learning resulted in increased learning as measured by performance on a cumulative final examination.

Campus Activism

Kathryn Russell, Professor, Philosophy
Michelle Talley, Undergraduate Student
Randi Storch, Assistant Professor, History
Mechthild Nagel, Assistant Professor, Philosophy

To learn things you've got to change things, and to change things you've got to learn things. What's college for anyway! Being an activist and pushing for change and awareness not only contributes to the community but also enhances a student's college experience. What motivates people to participate in activism? What do they get out of it? What does their community gain? How do people get involved? What is activism? Can one person really make a difference? What opportunities are there here at Cortland to be active? These questions and more will be answered at this panel as we explore campus activism.

Inequitable Representation of Female Athletes in New York Newspapers

Christopher Malone, Associate Professor, Physical Education; Coordinator of the ARETE Program
ARETE Program Students

One of the most dramatic changes in the world of sport during the last three decades of the 20th century has been the increased participation of girls and women. The primary reason more girls and women participate in sports today is that there are more opportunities. However, these increases in sport participation have not come easily, and there are still many obstacles to overcome if participation is to continue to increase. One area that needs to improve is the coverage of women's sports by the media. The media is one of the more potent influences in shaping values, norms, and behaviors of individuals as part of the process of socialization. But currently, the media does not cover women's sporting events in the same way that they cover men's sporting events. In particular, newspapers underrepresent female athletic events. Perhaps more females would participate in sporting events if newspapers would report the results in the same manner as they do men's athletic events.

Teaching Thinking Skills in Physical Education

Kath Howarth, Assistant Professor, Physical Education

For those involved in teaching in the psychomotor domain, teaching thinking skills may not be an obvious direction for research. Why is thinking worth thinking about by teachers of physical education? First, physical education is, by definition, part of education. Although it is beneficial to consider the unique contributions of physical education to the school curriculum, it may be self-defeating to ignore the directions taken by educational research and reflected in the general mission of many schools. This is particularly true in elementary and middle schools where curriculum integration is often encouraged. Second, it would be unwise to suggest that thinking does not occur in physical education. Physical education is "thought provoking" in that the activities require our full attention in order to perform them well. Physical education classes can be just as much about "brain" as "brawn". Howarth will outline how teachers and current research view the development of thinking skills in physical education.

The Relationship Between Competitive State Anxiety and Performance Among Intercollegiate Track and Field Athletes

Dave Milner, Undergraduate Student

Anxiety levels are known to have an important effect on athletic performance. This study sought to examine how differing levels of pre-competition anxiety impacts performance levels in track and field athletes, exploring the validity of the inverted-U hypothesis. Participants were athletes on three NCAA Division III teams competing at the ECAC Indoor track and field championships. The participants were required to complete a questionnaire designed to ascertain pre-race levels of cognitive anxiety, somatic anxiety, and self-confidence. Scores on these three sub-scales were then correlated with performance levels. It was hypothesized that athletes with mid-range anxiety levels would perform better than those who exhibited extremely high or low levels of anxiety. Moreover, it was predicted that the maintenance of mid-range arousal levels would be of greater importance in shorter or technical events than in longer or non-technical events.

Verifying Herpetofauna Species Distributions using Enzyme Electrophoresis

Kimberly Sweeney, Undergraduate Student
Steven B. Broyles, Associate Professor, Biological Sciences
Peter K. Ducey, Professor, Biological Sciences

This study was designed to examine species distributions in the New York State Department of Environmental Conservation's ten-year Amphibian and Reptile Atlas Project. We are using two *Desmognathus* salamander species to verify population distributions generated by the Atlas Project. *Desmognathus fuscus* and *D. ochrophaeus* were chosen because they are difficult to distinguish in the field, but possess a number of unique genetic markers that can be examined in the laboratory. We will use traditional morphological traits to identify the species in the field and compare with known species distributions recorded in the Atlas Project. Unique species-specific genetic markers will be examined in the laboratory to provide unequivocal identification and to provide a method for which species identities and distributions reported in the Atlas can be tested.

A Preliminary Phylogenetic Analysis of Milkweeds (Asclepias) Using Chloroplast DNA

John Baran, Rebecca Hazen, Undergraduate Students
Steven B. Broyles, Assistant Professor, Biological Sciences

The genus *Asclepias* is composed of 108 species endemic to North America. In 1954, Woodson proposed a classification based on floral morphology for the genus in which he recognized nine subgenera and eight series within the subgenus *Asclepias*. We will use the results of chloroplast DNA (cpDNA) sequence data to test the classification proposed by Woodson. cpDNA is an optimal molecule for studying relationships between species because it is abundant within plant tissues and generally evolves at a slower rate than nuclear DNA. Samples have

been collected from 17 species of milkweed and specific target sequences of cpDNA will be amplified using polymerase chain reactions. DNA digests with restriction endonucleases will be used to examine genetic variability between species of milkweeds. Our hypothesis is that those species comparisons within a series or subgenus should have fewer genetic differences than those comparisons between species in different series and/or subgenera.

Eavan Boland's "The Glass King" and R.G. Collingwood's Theory of Art
Alexander G. Gonzalez, Professor, English

Eavan Boland has long made it clear that she is a community-oriented poet who shuns highly self-involved and willfully obscure art, the kind that has lost touch with the community out of which it grew because the artist has arrogantly presumed to elevate himself or herself at its expense. Aesthetic theorist R.G. Collingwood, in *The Principles of Art* (1938), believes as passionately that art belongs to the community and decries what he calls "ivory-tower art," which is intelligible or moving only to the artist and perhaps a small clique of followers. Because of these and other close connections Collingwood's theory of art is extremely useful in helping to illuminate aspects of Boland's poetic art. "The Glass King," one of Boland's greatest poems, will be examined in the light of Collingwood's theory.

Matthew Arnold Exterminates the Brutes
David Faulkner, Visiting Instructor, English

Arnold's influential celebration of "sweetness and light" in Culture and Anarchy (1869) seems far removed from Joseph Conrad's Kurtz, at the dark, brutal heart of European colonialism. Yet, writing at what he called an "epoch of expansion," Arnold mobilizes the ambiguities of an emerging concept of "culture"--meaning both the opposite of "savagery" and a relativistic, anthropological sense of group identity--in ways that enmesh his ideas in England's imperial "civilizing mission." Arnold urges Englishmen to make "reason and the will of God prevail," and to touch "the raw and unkindled masses of humanity . . . with sweetness and light." The reward of self-government for the wretched of the earth would be endlessly deferred, until they should have been prepared for it by "culture." Meanwhile, unflinching repression would always lie close to the heart of the expansive humanist impulse.

CONCURRENT SESSIONS III

1:45-3p.m.

Memory for College Grades by SUNY Cortland Alumni
Elizabeth Meinz, Assistant Professor, Psychology
Amy Prout, Janine Cardio, Kelli Finley, Undergraduate Students

A study was conducted to determine the influences on accuracy of reported college grades by SUNY Cortland alumni. Over 100 participants from a wide range of graduation years (1935-1995) and ages agreed to participate and to have their college transcripts released for grade verification. Participants were called and asked to report their grades for each class taken during their college careers. Recall accuracy and distortion are discussed with respect to the permanence of memory, the effects of age and time since encoding on memory, and the effects of salience and affect on the reconstructive nature of memory.

Age, Experience, and Skill in Wind Musicians
Elizabeth Meinz, Assistant Professor, Psychology
Suzanne Gunter, Undergraduate Student

To investigate the predictors of musical skill, 61 amateur and professional trombonists of a wide age (15-96) and experience range (from 5-58 years) completed questionnaires about their musical experience, were measured for respiratory functioning, and played two familiar musical excerpts. Age was not significantly related to skill or to recent practice, but was positively related to the cumulative amount of practice reported. There was no evidence that experience moderated the effects of age on the measures of respiratory functioning, but there was evidence that the positive age-deliberate practice relations offset the slightly negative age-respiration relations. However, despite positive age-practice and practice-skill relations, there was no evidence for positive age-skill relations on any of the skill measures used. Furthermore, this lack of a positive age-skill relationship could not be accounted for by a reduction in recent practice among the older trombonists.

Star Formation in Clusters: At-Birth Sub-Clustering in the Serpens Core

Joseph S. Onello, Distinguished Teaching Professor, Physics

We present high-resolution interferometric and single dish observations of the Serpens cluster-forming core. Combining our new molecular data involving the CS(2-1) and N_2H^+(1-0) transitions observed with Caltech's millimeter wave array and the 14 m telescope of the Five College Radio Observatory with published optical, near infrared and millimeter wave observations, we show that star formation is not homogeneous throughout the core but localized in spatially and kinematically separated sub-clusters. This research reports the first evidence of hierarchical fragmentation of proto-cluster cores down to proto-stellar scales. The (proto-)stellar density in each of these sub-clusters is much higher than the mean density of the entire proto-cluster.

Partners for Oceanographic Science Education: The Sea Scholars Program

Beth Shiner Klein, Assistant Professor, Education

This session will provide an overview of the Consortium for Oceanographic Activities for Students and Teachers (COAST) Sea Scholars program and share experiences in partnering higher education faculty, informal marine educators, and U.S. Navy scientists to provide real-life oceanographic educational experiences for K-12 teachers aboard oceanographic survey ships.

Historical Experiences of Women in Western Society

Charles Van Horn, Gretchen Hall, Gregg Hepler, Maureen Blackmore, Michael Rabideau, Undergraduate Students

This panel will present the results of five ongoing research projects on the lives, achievements, and historical significance of women in the development of modern western society. The presenters have made use of a wide range of sources--private letters, autobiographies, interview transcripts, scholarly monographs and articles, and philosophical treatises. The topics include: the historical significance of women's letter-writing, the changing relationship between women, work, and family life, the role of socialism in the lives of Nicaraguan women, an interpretation of Alexandra Kollontai's feminist socialism, and central concerns in contemporary European feminist thought.

Organoaluminum Coordination Effect on the Stereoselectivity of Nucleophilic Reactions with 5-Azaadamantan-2-one

Juliet M. Hahn, Assistant Professor, Chemistry

Trimesitylaluminum, an analog of MAD has resulted in greater than 95% stereoselectivity in the reaction of 5-azaadamantan-2-one with a nucleophile. Reaction of 5-azaadamantan-2-one in the presence of trichloroaluminum shows almost no effect. Literature suggests the involvement of an aluminum - oxygen or an aluminum - nitrogen coordination. This stereoselective synthetic effect is expected to have theoretical implications for the mechanism in Evan's chelation effect and Yammamoto's nonchelation effect which is widely applicable to many organic reactions. Possible applications of this research is in the development of stereoselective synthetic techniques for molecules of pharmaceutical interest.

Stereoselectivity of Orotic Acid Photodimerization by Solvent and ph Effects

Juliet M. Hahn, Assistant Professor, Chemistry

Orotic acid , a derivative of thymine, is a natural degradation product and is a possible carcinogen. The stereoselectivity of the 2+2 photodimerization is being investigated under different conditons of solvent and pH. A number of stereoisomers have been identified under different reaction conditions and the structure has been assigned for some of these products. The methyl ester of the orotic acid has also been synthesized and the photodimerization reaction has been carried out. This photodimerization is of interest in understanding the mechanism of sunlight induced cancer and also has possible applications in photocrosslinking antisense oligonucleotides, and as a method of investigating gene expression.

Stereoselective Synthesis of Tropanes

Juliet M. Hahn, Assistant Professor, Chemistry

The stereoselective synthesis of pharmaceutical target molecules is becoming increasingly important with the realization that side reactions to many drugs are due to stereoisomeric mixtures. Tropanes are a large class of some 200 natural products, one of which is cocaine. Many of the tropanes are potential drugs. To develop a method of general utility for the stereoselective synthesis of tropanes the tropanone stereoselectivity is being investigated. A zwitterionic effect as well as an organoaluminum stereoselectivity effect is being studied. The tropanone has been synthesized by a 4 step synthesis and fully characterized by spectroscopic methods. Some of the product ratios has also been characterized. The stereoselective synthetic effects will be discussed.

The Case for a Revolution

Bill Griffen, Professor, Education

In terms of meeting both short and long-range needs of the race and the planet, our present system is creating more problems than solutions. The pervasive problems of inequality, injustice, and environmental insanity are driven by economic systems built on growth relying on "exchange value" rather than "use value."

Beliefs About Women and Health-Related Myths

Erin Applegarth, Undergraduate Student

Judith Ouellette, Assistant Professor, Psychology

Women's reproductive abilities have been linked to their mental health throughout history. In this study, undergraduate students volunteered to answer a survey. Part of this survey assessed an individual's beliefs about eleven health myths, which were selected from historical reviews of the literature. Another part of the survey assessed individual differences such as the Social Dominance Scale, Beliefs about Women and Feminism scales, and several gender role scales. Findings indicate that males had more negative attitudes toward women than females, and females who subscribed to "traditional" female roles also had more negative attitudes toward women than females who do not subscribe to these beliefs. Additionally, individuals who held more negative views of women, regardless of gender, were more likely to believe the health myths than those who did not hold negative views of women. However, this relationship was slightly stronger for males than for females.

Triple Whammy: Multiple Constraints of African American Working Women in Urban America

Ibipo Johnston-Anumonwo, Associate Professor, Geography

This paper presents an analysis of the experiences of African American women in U.S. cities that links conceptual and empirical material. Disaggregate analysis of employment profiles in 1990 for selected cities reveal the continuing, pervasive and cumulative roles of gender, race and class. Widespread occupational sex segmentation and racial residential segregation mean that inner city African American women with service jobs are heavily disadvantaged in their access to the growing employment opportunities in suburban centers. In spite of the constraints, and as part of their survival strategies, these African American women combine motherhood with waged employment and endure long work trips to distant suburban workplaces. These results are contrary to the image of lazy black women and dispel the myth of the welfare queen. The findings can inform policy makers about the need to recognize the persistent efforts of inner city residents to seek employment and to reward such diligence with meaningful job opportunities. Merely improving the access of inner city African American women to low status service jobs is certainly not a sufficient policy goal. A significant volume of the evidence from the analysis can be interpreted under the framework of Iris Young's conceptualization of "the five faces of oppression."

Third World Women: Informal Sector Work in the Context of Debt and Financial Crises

Donna L. Doane, Associate Professor, Economics

Developing countries have been rocked by the social and economic turmoil created by debt and financial crises over the past two decades. Researchers typically focus on the impact of these crises on (largely male) wage earners working in "formal sector" (office and factory) jobs, particularly those who are laid off. However, we find that in many countries the burden falls doubly hard on poor women working in "informal sector" jobs (homebased production, street vending, and other underpaid and unprotected work, usually done "off the books"). In the wake of debt and financial crises they typically have to increase their number of working hours to support their families, even as their wages fall and the number of hours they need to spend doing household labor and taking care of relatives and children increases. Because these dramatic changes are largely "invisible" to policymakers and go unstudied and unrecognized, women working in the informal sector will not benefit from policies meant to help workers cope with debt and financial crises. Although the focus of this talk will be on the Asian financial crisis, examples will also be drawn from Africa and Latin America to illustrate how women cope with poverty and "invisible adjustment."

The Raku Process: A Collaborative Demonstration - PART I

Phillip Grippo, Benjamin Cottom, Undergraduate Students

Jeremiah Donovan, Assistant Professor, Art and Art History

The presentation will discuss a brief history of the Raku Firing process in ceramics. We will begin the presentation by demonstrating the construction of a figurative vase form using the throwing technique and sculptural methods. This collaborative piece will combine the ideas of ceramic functional potter with the style of a figurative sculptor. The second step of our work is firing the figure form in a process called Bisque Firing, although we shall not actually fire the piece we will show the before and after affects of the work. After the piece is fired we will move onto the Glazing process, which is the third step of our presentation. With our now glazed piece we will move on to the actual Raku Firing. The firing is the culmination of our work, its unpredictable nature is what we

shall try to control in order to produce a unique surface on our figurative form. This process has been used throughout history and we shall show it still can be used in modern day art.

The Dragon Planet – Giving the First Global Generation Its Voice in News Media
Devereaux Kennedy, Director, Dragon Planet
Kristine Angell, Jason Contento, Undergraduate Students

The Dragon Planet (http://ezdragon.cortland.edu) is a weekly international website news magazine. Its editorial office is at SUNY Cortland. It has regional desks at universities in eight foreign countries. The Planet is now in its second year of publication. In this presentation the Planet's Director, graphic designers and writers will describe how the Planet began, how it is produced and how it has progressed. Future plans for the Planet will also be described.

Learning to Learn Together: The Integrated Block from the Students' Perspective
Michele Toepp, Cassandra Huck, Michael Spring, Jamie Davis, Undergraduate Students

For the past 3-4 years, the Education department has offered one section of its first methods course block as an "integrated block" in which 25 students share the same four instructors. The "block" has a field experience coordinated with course work, and several integrated assignments which contribute to grades in all four classes. The faculty have previously presented at Scholar's Day, commenting about their perceptions of the benefits of teaching in this manner. In this presentation, selected students will speak about their reflections related to this program—in terms of benefits, drawbacks, contributions to their future professional development and the unique environment the "block" creates for learning.

Twentieth Century French Theatre
Jen Newman, Sherrie Fildes, Undergraduate Students

"Theatre of the Absurd" describes the group of 20th century French plays to be discussed by Jen Newman. Following the showing of a video segment of a work by one of the authors in question, Samuel Beckett, Sherrie Fildes will discuss interpretations of this playwright's work.

The New Journalism 30 Years Later: Lessons Still to Learn?
Tammie Mosher, Christopher Schroeder, Ray Holman, Jennifer Sain, Undergraduate Students

It has been a thirty years since the "new journalism" peaked around 1970. This panel will exam this genre that defied traditional journalistic and literary boundaries and what relevance, if any, it still has today with the advent of the new millenium. Panel members will discuss such issues as the critical "other," subjectivity, and iconoclasm in such works as Michael Herr's account of the Vietnam War, Dispatches, and Tom Wolfe's description of Ken Kesey and the Merry Pranksters in The Electric Kool-Aid Acid Test.

Racism, Power, and Policy-Making: Redefining Whiteness
Seth N. Asumah, Associate Professor, Political Science; Coordinator, African American Studies

Racism is the ability and power to enforce one's own prejudice on another group. Power is the ability of a control group to manipulate, alter, or shape the environment and influence the behavior of others. Racism structures a society so that the prejudices of one racial group are taught, perpetuated, and enforced to the benefit of the dominant group. Racism is the notion that one's race determines one's identity and destiny. One's convictions, values, and character are determined not by the judgments of one's ability but by the color of one's skin. The destruction of a target group's confidence and sense of identity through racism is implicitly or explicitly perpetuated by the policy making process of the dominant group. Tackling racial problems in America and subsequent eradication of racism could be attained by confronting the root causes of the practices and policies that lead to racism. To mitigate the fears, misconceptions, and racist policies we must develop a society in which the dominant group (Whites) will acknowledge their racial identity and power position as instruments for change. Asumah will argue that aside from normative and transformative models for dealing with racism in America, a new approach of developing white identity as a positive tool in policy making will help remedy the insidious and pervasive effects of personal and institutional racism.

Why Do They Start It? Explaining Early-Teen Sexual Activity
Craig B. Little, Professor and Chair, Sociology/Anthropology
Andrea Rankin, Jacobus Center for Reproductive Health

Our work seeks an account of why young teens initiate consensual sexual activity. It does so by constructing statistical models aimed at distinguishing those who report having initiated sexual activity from those who have not in four samples of eighth-graders from an Upstate New York county. Theoretical selection of the model variables is guided by insights from "problem syndrome," control and differential association theories. From our findings we conclude the following: 1. Risk behaviors foreseen by the "problem syndrome" approach, including having used

marijuana and having been drunk, are significant, powerful predictors of early-teen sexual activity. 2. The social setting of consensual sexual activity differs by sex at the eighth-grade level. For example, having a boy friend is a more consistent, powerful predictor variable for girls than for boys and there is evidence to support the hypothesis that boys initiate sexual activity in the context of status-seeking while girls are more likely to do so as a way of attaining approval. 3. Our findings do not give clear primacy to parents or peers as an influence on early-teen consensual sexual activity. Both control theory, usually associated with "parental-influence" variables, and differential association theory, usually associated with "peer-influence" variables, receive support. 4. The results of the research spanning a two-year period of intensive community anti-teen-pregnancy efforts by a Zero Adolescent Pregnancy (ZAP) campaign are consistent with the conclusion that such a multifaceted approach might help lower early-teen initiation of sexual activity.

Exploring Teen-Adult Relationships: An Impact Assessment

Donna Videto, Associate Professor, Health

Numerous individuals and organizations have identified unintended pregnancy, abuse, rape, and STIs as problems resulting from teenage females being involved in relationships with older adult males (Males, 1996, Clark & Moore, 1997; "What Can We Do," 1998). To address this issue, Planned Parenthood of Southwest Ohio/Northern Kentucky developed two 50-minute sessions and an instructional video. Program implementation occurred in three schools in Southwest Ohio/Northern Kentucky. Investigators reviewed the materials for instructional appropriateness, determined content validity of pre/post-test instrument, and analyzed data from the intervention and control groups. Results indicated that the program appeared to facilitate the attainment of the instructional objectives and had a short-term impact on attitudes, knowledge and resource awareness. One investigator will discuss the steps taken to conduct the program assessment and results of the investigation will be shared.

The Life History of the Late Triassic "Flat Clam" *Monotis subcircularis*: Evidence from British Columbia, Canada

Jeffery Shaner, Undergraduate Student
Christopher McRoberts, Assistant Professor, Geology

New collections of the Late Triassic bivalve genus *Monotis* from northeastern British Columbia, provide insights into this group's paleoecology. Though well recognized as important stratigraphic indicators, differing models have been proposed to explain the unusual morphologies and modes of occurrence of the various *Monotis* species. This work, focusing on *M. subcircularis,* recognizes a teleplanic pelago-benthonic life history coupled with pioneer species colonization and community dynamics on soft, organic rich, marine substrates in deeper waters with low energy regimes. Field observations and size-frequency distributions indicate two different shell bed types. The first type consists of meter-thick, high density beds exhibiting some valve sorting consistent with a time-averaged accumulation. The second type consists of thinner, lower density beds dominated by juveniles which are interpreted to represent census assemblages. Shell beds of varying thickness interspersed with non-fossiliferous layers are interpreted as evidence for aerobic-dysaerobic events, and an accordingly synchronized *M. subcircularis* adaptive pathway.

Heating Fluid Inclusions in the Diamond Anvil Cell

Robert Darling, Associate Professor, Geology

Hydrothermal minerals (e.g. quartz) often trap small (micron-size) samples of the fluid from which they are crystallizing. These "fluid inclusions" can be heated and their phase behavior observed under a microscope. The phase changes and the temperatures at which they occur can yield useful information on the physical conditions of mineral formation. However, fluid inclusions containing H2O and CO2 develop large internal pressures while being heated. The pressure increase usually exceeds the tensile strength of the mineral and the inclusion explodes. However, heating the inclusion in a diamond anvil cell alleviates the problem. This is because the pressure on the outside of the mineral specimen can be regulated so that it is greater than or equal to the pressure inside the inclusion during heating. Therefore, the high temperature phase relations can be resolved. This technique is currently being applied to fluid inclusions in quartz from the Adirondack Mtns., NY.

CONCURRENT SESSIONS IV

3:15-4:30 p.m.

Latvia's Singing Revolution: Song as Eco-Cultural Resistance to Imperial Hegemony
John C. Hartsock, Assistant Professor, Communication Studies

Political scientists, diplomats and other international observers were caught off guard when the Soviet Union collapsed suddenly in 1991. The example of Latvia suggests that indigenous cultures can have weapons of their own that defy the kinds of conventional measures Western authorities apply when analyzing imperial structures. In Latvia's case that proved to be an ancient song tradition that reflected an "eco-cultural" sensibility about a people's relationship to their land. The result was a potent national consciousness kept alive by means of an ancient language reflected in one of the largest national

Interpreting America: Russian Studies of American Thought
John Ryder, Dean, School of Arts and Sciences

More scholarly works on American intellectual history and the history of American philosophy have been completed in Russian than in any language except English; yet most of that body of work has never been translated or studied by American specialists. As a result, Soviet era efforts to understand American thought have remained almost entirely unknown to Western scholars. This talk will focus on highlights of an extensive study of the Russian language literature about the history of American thought, most of which was written between the late 1940s and the early 1990s. We will consider Soviet writings on American thought from the Puritans to the present, as well as changes in the tenor of Soviet commentary from the immediate post-war period through the late 1980s.

Controversial Social Issues in Gender and Aging Across the Life Course
Tara Tracey, Kristin Finn, Janine Cardio, Kelli Finley, Undergraduate Students

All age groups, including those in later life, are constantly engaged in actively creating and recreating their lives within the context of society as they respond to ongoing social change. Using a Life Course Perspective, students will present debates on crucial issues that focus on the variable of gender and the variable of age. These issues have profound implications for both the burgeoning older generation in American society and for those in the early to middle years. Position papers will address the topical areas of the right to die, sexual harassment in the workplace, and women's needs versus the needs of their children.

Fun Work: Women's Work and Play in the U.S. Garage Sale
Gretchen Herrmann, Librarian

The garage sale is a female dominated institution: women comprise about two-thirds of the shoppers and sellers. Women often create a category somewhere between work and leisure, or "fun work," in their perceptions of their garage sale activities. Although their efforts in housecleaning/selling and provisioning/shopping can be considerable, many view these activities as enjoyable play rather than onerous work. This paper explores some of these sliding boundaries between work and play in the garage sale and the factors that contribute to the view of "fun work".

Delivering Women's Health Education Through Group Exercise Classes: A Needs Assessment
Kelly Pagel, Visiting Instructor, Health
Bonni C. Hodges, Associate Professor, Health

The use of non-traditional venues and avenues for health education and health promotion has been growing in recent years. Group exercise instructors are well positioned to be agents of change for their mostly female clientele. A needs assessment was performed to identify areas of women's health that could be addressed by group exercise instructors. Instructors believed themselves to be moderately to highly knowledgeable in several topic areas, and thought women's health topics had high to very high relevance to the group exercise situation. Menopause-related issues were identified as an area of low perceived knowledge and high importance. Further research needs to be conducted to ascertain the actual knowledge levels of group exercise instructors in women's health related areas in order to develop appropriate training sessions to enable them to deliver health education.

Reconstructing Recent Climate Change in Southern Alaska using Tree-Ring-Widths and Glacier Fluctuations
David Barclay, Assistant Professor, Geology

Reconstruction's of past climate help in understanding how the Earth's natural climate system operates, and therefore may give insight into how climate could change in the future. Trees in southern Alaska typically produce wide annual growth rings in warm summers and narrow rings in cooler years; Barclay will discuss how ongoing

studies are using these natural archives to develop a continuous climate record spanning the past 2000 years for the Prince William Sound region of southern Alaska. An additional aspect of this research is reconstructing histories of glaciers that advance in response to wetter and/or cooler conditions. Glaciers throughout Alaska and north-western Canada have undergone three major episodes of advance during the "Little Ice Age" climatic event of the past 1000 years, and the similarity in timing of these fluctuations suggests common climatic forcing across this extensive area of the western hemisphere.

Late Holocene Glacier Fluctuations in Sherman Valley, Southern Alaska

Jason Graves, Undergraduate Student
David Barclay, Assistant Professor, Geology

Glacial sediments and stratigraphy within Sherman Valley, southern Alaska, record several late Holocene advances of Sheridan and Sherman glaciers. A river-bluff exposure of gravel and glacial till, together with incorporated tree-trunks dated at AD 570, records upvalley advance of Sheridan Glacier from its current position blocking the mouth of Sherman Valley. Between 300 and 500 meters farther upvalley towards Sherman Glacier, numerous logs are located in low bluffs and recently active meltwater channels. Tree-ring cross-dating of these logs with living trees suggests a forest was present in the central Sherman Valley area from at least AD 1396 to 1662. Exposures show this former forest floor to be buried by well-sorted gravel outwash, suggesting that the forest was killed by meltwater flowing downvalley during advance of Sherman Glacier. These two times of glacial advance are consistent with the previously reconstructed late Holocene glacial history of southern Alaska.

What Makes an Interpretation Unacceptable?

Eberhard Alsen, Professor, English
Karla Alwes, Professor, English
Alan Hager, Associate Professor, English
David Franke, Assistant Professor, English

Professor Alsen will open the proceedings with a brief introductory presentation summarizing two opposite views on the validity of interpretations as expressed in Stanley Fish's infamous essay "What Makes an Interpretation Acceptable" and in E.D. Hirsch's book Validity in Interpretation. Then he will illustrate the problem of the limits of acceptability by summarizing the conflicting readings of William Wordsworth's poem "A Slumber Did My Spirit Seal" by three famous critics, Cleanth Brooks, F.W. Bateson, and J. Hillis Miller. After this introductory presentation, professors Karla Alwes, Alan Hager, and David Franke will each give a 10-minute presentation to explain how they deal with unacceptable student interpretations in their literature classes.

Peer Teaching Across Courses in a Teacher Education Program

Emilie Kudela, Assistant Professor, Education
Joy Mosher, Assistant Professor, Education

This study examines the effect of across-class peer dialogue upon students' understanding of constructing equitable classroom environments. Undergraduate students questioned graduate students about effective ways to meet the needs of children with disabilities. The undergraduate students summarized their understandings in a poster demonstration and presented this information to the graduate students for feedback. These sessions were videotaped. Analysis of the sessions yielded a number of themes and paradoxes that play an important role in pre-service teachers' preparation for including children with special needs in the regular education classroom.

The Past, Present and Future of Nuclear Weapons

Nicole Dermady, Jeffrey Lener, Undergraduate Students

Nuclear weapons came about through many various discoveries, such as the equation $E=mc^2$ (A. Einstein) and artificial radiation (Curie & Joliet), right up to the discovery of nuclear fission in 1938 by Hann and Strassman. With the fact that H.G. Wells guessed in 1914 that an atomic weapon would contaminate the environment with radioactivity and make it uninhabitable, we have to ask ourselves, "Why did atomic study continue?" If we can answer this question, maybe it can help us better understand why nuclear weapons still exist today. In the past nuclear weapons have existed largely because of mistrust and competition between nations. Various events in the past demonstrate this, but it is most clearly demonstrated by the arms race between the U.S. and the U.S.S.R.. In this situation both sides had many more weapons than could ever be used, proving the fact that there is no real logic behind our nuclear weapons policies. Over the history of nuclear weapons some progress has been made, but not enough to make any real impact. In the future countries must work together to solve this common problem.

Nuclear Abolotion

John Pinder, Undergraduate Student

The issue of stopping nuclear weapons is as old as the bomb itself, and maybe even older. Its creators knew how awful it really was before they even built it. However, most countries in the world today still have nuclear weapons, and those who don't would feel better if they did. The rare exception, such as Japan, feels safer without nuclear weapons. They know that nuclear weapons can't help them win a war. There are no winners in a nuclear war. So why would anybody want such a weapon? Some countries that have them claim to have no intention of ever using them. They just need the weapon for security reasons. To justify the possession of nuclear weapons we use fear. If everybody has nuclear weapons, we would be too scared to use them in fear of destroying each other and the world around us. Wouldn't it be more effective if there were no devastating bombs to throw at each other in the first place? I certainly think so. We should be moving toward disarmament, not proliferation. Nuclear weapons have no place in a healthy civilized world.

Road to Peace

Tim Steimer, Undergraduate Student

The road to peace will be a difficult one in years to come. There are a handful of countries who have access to nuclear weapons, and many more countries in the world who wish to have access to these weapons of mass destruction. The countries that do not have nuclear weapons still desire them, even though the impact that they have on the world is overwhelming. Countries like China, India, France, Russia, the United Kingdom, the United States, Israel and Pakistan must be world leaders and disarm themselves of nuclear weapons, despite the consequences. The money that is spent on nuclear weapons by each country that has them or are in the process of building them are throwing their money away. As we move closer to the zero hour on the doomsday clock, countries are doing less by preparing themselves for disarmament, despite the fact that we can move back in time away from the zero hour. As we approach the 21st century, world peace may be a possibility if the members of the nuclear club are willing to show the world that they are seriously negotiating with its enemies by disarming their nuclear weapons.

Nostrums, Snake Oil, and Dietary Supplements. HAVE we come a long way, baby?

Rena Crockett Janke, Assistant Professor, Biology; Coordinator, Secondary Science Education

"Lose weight and build lean muscle while you sleep." Feel the years melt away with our new age-defying complex." "Look think and sexy in a single weekend with Sasha's Miracle Diet." In the last fifty years, medical research has dramatically changed what we know about staying healthy and living longer. Despite health claims supported by sound scientific methodology, Americans spend billions of dollars each year on unproven claims and cures for what ails them. Janke will trace the collective obsession with health and fitness from the sanative washes, purifiers, and bitters of the nineteenth century to the pill-popping mania of the twenty-first century. Since adolescents are often the targets of marketing campaigns to sell products that promise instant good health, good looks, popularity, and sex appeal, Janke will offer ways for teachers to examine "snake oil" and food and drug faddism in an integrated middle and secondary school curriculum.

Puppets Against HIV

Gayle Cichocki, Undergraduate Student

Fear of AIDS is the result of a lack of knowledge about the disease, especially how it is spread. Therefore, it is imperative for health educators to impart critical information to children about healthy relationships at an early age, progressing to more sophisticated messages as the children mature. "Puppets Against HIV" is one teaching tool which offers educators a way to show the alarming increase of the HIV epidemic among adolescents in the United States. The overall purpose of puppets is to teach through entertainment by focusing on issues facing today's children and, at the same time, making learning a fun and imaginative process. Puppets are less threatening than adults to children, enabling educators to tackle difficult issues and deliver strong messages. Puppets can be utilized to initiate student-parent-educator discussions. They can help children, especially adolescents, make informed decisions about their attitudes and actions by providing ways for resisting social pressures and unsafe behaviors.

Appraising the Cayuga Land Claim - An Exercise in Applied Historical Geography

Scott W. Anderson, Visiting Assistant Professor, Geography

On February 18, 2000 a jury of 9 central New Yorkers awarded the Cayuga Nation $36.9 million in compensation for their loss of the 64,015-acre Cayuga Reservation in "illegal" state purchases in 1795 and 1807. Despite being a substantial sum by most standards, this award was quickly decried by Cayuga Nation members and their lawyers, expert witnesses, and newspaper commentators as being "ridiculous," "totally irrational," and "puzzling and amazing." On the other hand, representatives of Upstate Citizens for Equality, the action group organized by landowners to oppose Cayuga efforts to reestablish a presence in central New York, decried the award as too large and unwarranted in equally emotional terms, and vowed to seek an appeal to overturn it. Among the

questions the jury addressed was the current value of this tract of land, and its fair rental value over 204 years of Cayuga dispossession. What federal judge Neal McCurn did not allow the jury to consider was the value of state payments to the Cayuga for their land over 204 years, and the difference between the state's initial purchase price for the reservation and its actual worth at the time. These questions are likely to be important issues in any subsequent appeals, and answers to them may serve to support the position that the jury award was indeed quite fair. Using archival evidence and GIS presentations, Dr. Anderson will demonstrate how research methods in historical geography can provide insight into these and related questions.

Contemporary Journalistic Portrayals of Nineteenth-Century Frontier Violence

Roger Tuller, Lecturer, History

For more than three decades, American historians have studied and debated both the extent and impact of violence on the western frontier. Although some have found the West to be remarkably orderly, others have described patterns of extreme brutality comparable to those of U. S. cities late in the twentieth century. But few historians have examined how contemporary observers perceived such events. By examining newspaper accounts of notorious examples of western lawlessness, Tuller will provide a preliminary analysis of regional perceptions of frontier crime and violence as they evolved over the last quarter of the nineteenth century.

Methyl Bromide Production and Degradation by Fungi

Peter M. Jeffers, Professor and Chair, Chemistry

Methyl Bromide has been an effective agrochemical, used for fumigating fields, live plant-stock, and produce. However, this gas also is classed an ozone depleting compound. Our experiments have shown that plants and fungi take in methyl bromide from the air and degrade it. Plants and fungi have also been shown to produce methyl bromide if the soil is rich in bromide. Our recent experiments with spinach and cabbage plants provide strong circumstantial evidence that different enzymes are involved in the formation and degradation pathways. Fungi experiments confirm these findings, and provide our first solid evidence that the processes we observe are strictly due to reactions within the plant and can not be ascribed to attendant bacteria.

DNA in Salty Environs

Charles Spink, Professor, Chemistry

The conformation of the DNA duplex is strongly dependent upon the physical and chemical environment in solution. Various forms, B, A and Z, as well as other more subtle changes within conformations, are determined by a combination of water activity, salt content and the presence of crowding agents. To complicate the picture more, conformation is also influenced by the base sequences within the DNA chain. As a continuing study of these influences on DNA conformation and stability, this paper will present results from recent work on the stability of various forms of DNA in aqueous environments containing different ions and water activity. There is evidence that A-T tracts in the duplex form provide sites for excess binding of ions and water as a consequence of the character of the minor groove. Using a combination of osmotic stressing techniques in buffers containing different ions (Li, Na, K and Cs) we have measured the stability of a homopolymer of DNA which has alternating A-T tracts (poly(dAdT)poly(dAdT)). The results indicate that this particular DNA form does indeed seem to bind excess water, particularly in the presence of sodium ions. The reasons for this behavior will be discussed in the context of similar work on other DNA conformations.

Working Hard and/or Working Smart: Profiles of Students' Study Patterns in a Course Using Computer-Assisted Instruction

Paul D. Luyben, Associate Professor, Psychology

The widespread availability of inexpensive desktop computers and computer laboratories provides powerful new resources for instructional design. With computer-assisted instruction, teachers can set up computer-based learning opportunities which: a) provide carefully designed tasks which teach and/or evaluate learning of particular concepts; b) promote active student responding; c) arrange virtually unlimited practice to develop mastery and fluency of concepts; d) provide corrective feedback on student response to questions/tasks, and; d) maintain records of student performance. To optimize the design and delivery of these experiences, however, it is important to know how students are using these resources. The purpose of this presentation is to present a profile showing how students are using two software programs in two different courses. Of particular interest is a comparison of the profile of students who do well in the courses with the profile of students who do poorly. The implications of the findings for instructional design are discussed.

Rethinking Lesson Planning from the Student's Perspective: Rationale and Strategies

T. Ellen Hill, Lecturer, English

Over the last half-century, American public schools have implemented reforms in almost every area of teaching and learning—except, that is, for lesson planning. One aim of this presentation, therefore, is to analyze the common criteria of popular lesson plan formats; also, to reassess the relevance and effects of the assumptions underlying these criteria on students today. The presentation's second goal will be to compare/contrast the American approach with alternate cultural approaches to lesson planning, particularly Japan's successful concept-based approach. Finally, participants, who are requested to bring a sample of a currently used lesson plan model, will collaborate in realigning their plan with students' learning needs.

The Raku Process: A Collaborative Demonstration - PART II

Phillip Grippo, Benjamin Cottom, Undergraduate Students
Jeremiah Donovan, Assistant Professor, Art and Art History

The presentation will discuss a brief history of the Raku Firing process in ceramics. We will begin the presentation by demonstrating the construction of a figurative vase form using the throwing technique and sculptural methods. This collaborative piece will combine the ideas of ceramic functional potter with the style of a figurative sculptor. The second step of our work is firing the figure form in a process called Bisque Firing, although we shall not actually fire the piece we will show the before and after affects of the work. After the piece is fired we will move onto the Glazing process, which is the third step of our presentation. With our now glazed piece we will move on to the actual Raku Firing. The firing is the culmination of our work, its unpredictable nature is what we shall try to control in order to produce a unique surface on our figurative form. This process has been used throughout history and we shall show it still can be used in modern day art.